

CLAIMS

What is claimed is:

1. A recombinant nucleic acid molecule derived from a precursor recombinant nucleic acid molecule, said recombinant nucleic acid molecule produced by the action of a nucleic acid polymerase on the precursor recombinant nucleic acid molecule; wherein said precursor recombinant nucleic acid molecule

is based on or derived from an adenovirus,

has at least one functional inverted terminal repeat,

lacks overlapping sequences with the nucleic acid of a cell into which it is transferred, said overlapping sequences otherwise enabling homologous recombination leading to replication competent virus in said cell,

comprises all adenovirus derived genetic information necessary for replication except for a functional encapsidation signal, and

is in a linear and essentially single stranded form and comprises, at the recombinant nucleic acid molecule's 3' terminus, a sequence complementary to an upstream part of the same strand of the precursor recombinant nucleic acid molecule, to allow said sequence and said upstream part to form base pairs and function as a start-site for a nucleic acid polymerase.

2. The recombinant nucleic acid molecule of claim 1, wherein said recombinant nucleic acid molecule has a functional inverted terminal repeat at each terminus.

3. The recombinant nucleic acid molecule of claim 1, wherein said recombinant nucleic acid molecule comprises a nucleic acid which alters the host range of said adenovirus as compared to a wild-type adenovirus.

4. The recombinant nucleic acid molecule of claim 1, wherein said recombinant nucleic acid molecule comprises a mutated E2 region rendering at least one of its products temperature sensitive.

5. The recombinant nucleic acid molecule of claim 1, wherein said recombinant nucleic acid molecule comprises an E2 region under the control of an inducible promoter.